



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,052	10/22/2003	Charles M. Milliren	36211	6115
116	7590	11/30/2005		
PEARNE & GORDON LLP 1801 EAST 9TH STREET SUITE 1200 CLEVELAND, OH 44114-3108			EXAMINER COONEY, JOHN M	
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/691,052

Applicant(s)

MILLIREN, CHARLES M.

Examiner

John m. Cooney

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>0905</u> . | 6) <input type="checkbox"/> Other: _____  |

Applicant's arguments filed 8-22-05 have been fully considered but they are not persuasive.

The following rejections are set forth as new in light of applicants' newly submitted claim 40:

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 40 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The recitation of capability to provide effective attenuation as recited in applicants' claim 40 is not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Support for the recitations of this claim are not seen to be adequately provided for by Table 3 and Figures 1-12 as alleged by applicants. This is a new matter rejection.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 1711

Claim 40 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "conventional" in claim 40 is a relative term which renders the claim indefinite. The term "conventional" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Applicants' do not adequately define "conventional expanded polystyrene" so as to render the basis of the recitations of the claim determinable, and, accordingly, the claim is confusing as to intent.

The following rejections are maintained and reflect the inclusion of new claims 33-40:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1711

Claims 1-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Apichatachutapan et al.(2004/0266897).

Apichatachutapan et al. discloses preparations of viscoelastic polyurethane foam preparations wherein isocyanates having isocyanate content values as claimed by applicants are combined and reacted with polyol compositions which are polyether polyols based on glycerols, amines, alkanolamines, and other initiators, and wherein the compositions are combined at an NCO index as defined by the claims and in the presence of various catalyst which are encompassing of those claimed (see the entire document). Apichatachutapan et al.'s preparations exhibit impact properties which are not seen to differentiate from those of applicants' claims based on the materials and make-ups of the preparations claimed.

The claims are not seen to differ from Apichatachutapan et al. based on applicant's claims' recitation of the term "semi-rigid". Although the term "semi-rigid" may be of use to practitioners in the art for purposes of classification of the different materials for research and application purposes, this term does not lend the claims the weight of a limitation in a patentable sense. This term without further definition in the claims does not serve to distinguish the instantly claimed foams from other flexible (and/or rigid) foams based on the employment of this term alone.

The claims are not seen to differ from Apichatachutapan et al. based on the employment of the limitation "having a propylene oxide extended tip", because this limitation is only seen to require that propylene oxide be employed in the "growth" of the polyols from their respective initiator molecules.

Apichatachutapan et al. does differ from applicants' claims in that it does not specifically require that amine based polyether polyols be employed in their preparations. However, Apichatachutapan et al. does recite that amine initiators, and, particularly, the specific amines of applicants claim 32, can be used in the practice of their invention for the purpose of providing adequate isocyanate reactive components(see paragraph [0024]). Accordingly, it would have been obvious for one having ordinary skill in the art to have employed the amine initiators disclosed by Apichatachutapan et al. in the preparations of Apichatachutapan et al. in blended combinations for the purpose of providing their isocyanate reactive effect in the preparations of Apichatachutapan et al. in order to arrive at the products and/or processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

The limitations of claims 33-40 have been considered but the reference provides disclosure of glycerine-based polyether polyols and NCO indexes as claimed and distinction based on these elements is not seen. Additionally, the relative effective attenuation recitations of claim 40 are not seen to patentably distinguish the claims in a patentable sense as a clear basis for these claim recited determinations are not set forth in the claims so as to give the recitations of this claims meaning as a limitation in the patentable sense.

Art Unit: 1711

Claims 1-9, 11-22, 24-31, and 33-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lutter et al.(5,420,170).

Lutter et al. discloses preparations of viscoelastic polyurethane foam preparations wherein isocyanates having isocyanate content values as claimed by applicants are combined and reacted with polyol compositions which are polyether polyols based on glycerine, amines, and other initiators, and wherein the compositions are combined at an NCO index as defined by the claims and in the presence of various catalyst which are encompassing of those claimed (see the entire document). Lutter et al.'s preparations exhibit impact properties which are not seen to differentiate from those of applicants' claims based on the materials and make-ups of the preparations claimed.

The claims are not seen to differ from Lutter et al. based on applicant's claims' recitation of the term "semi-rigid". Although the term "semi-rigid" may be of use to practitioners in the art for purposes of classification of the different materials for research and application purposes, this term does not lend the claims the weight of a limitation in a patentable sense. This term without further definition in the claims does not serve to distinguish the instantly claimed foams from other flexible (and/or rigid) foams based on the employment of this term alone.

The claims are not seen to differ from Lutter et al. based on the employment of the limitation "having a propylene oxide extended tip", because this limitation is only seen to require that propylene oxide be employed in the "growth" of the polyols from their respective initiator molecules.

Lutter et al. does differ from applicants' claims in that it does not specifically require that amine based polyether polyols be employed in their preparations. However, Lutter et al. does recite that amine initiators can be used in the practice of their invention for the purpose of providing adequate isocyanate reactive components(see column 7 line 53 – column 8 line 19, as well as, the entire document, again). Accordingly, it would have been obvious for one having ordinary skill in the art to have employed the amine initiators disclosed by Lutter et al. in the preparations of Lutter et al. in blended combinations for the purpose of providing their isocyanate reactive effect in the preparations of Lutter et al. in order to arrive at the products and/or processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

The limitations of claims 33-40 have been considered but the reference provides disclosure of, and even a preference for, glycerine-based polyether polyols and NCO indexes as claimed and distinction based on these elements is not seen. Additionally, the relative effective attenuation recitations of claim 40 are not seen to patentably distinguish the claims in a patentable sense as a clear basis for these claim recited determinations are not set forth in the claims so as to give the recitations of this claims meaning as a limitation in the patentable sense.



Claims 1-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Falke et al.(6,316,514).

Falke et al. discloses preparations of polyurethane foam preparations wherein isocyanates having isocyanate content values as claimed by applicants are combined and reacted with polyol compositions which are polyether polyols based on various initiators inclusive of glycerols, amines, alkanolamines, and other initiators and wherein the compositions are combined at an NCO index as defined by the claims and in the presence of various catalyst which are encompassing of those claimed (see the entire document). Falke et al.'s preparations exhibit impact properties which are not seen to differentiate from those of applicants' claims based on the materials and make-ups of the preparations claimed.

The claims are not seen to differ from Falke et al. based on applicant's claims' recitation of the term "semi-rigid". Although the term "semi-rigid" may be of use to practitioners in the art for purposes of classification of the different materials for research and application purposes, this term does not lend the claims the weight of a limitation in a patentable sense. This term without further definition in the claims does not serve to distinguish the instantly claimed foams from other flexible (and/or rigid) foams based on the employment of this term alone.

The claims are not seen to differ from Falke et al. based on the employment of the limitation "having a propylene oxide extended tip", because this limitation is only seen to require that propylene oxide be employed in the "growth" of the polyols from their respective initiator molecules.

Falke et al. does differ from applicants' claims in that it does not specifically require that amine based polyether polyols be employed in their preparations. However, Falke et al. does recite that amine initiators, and, particularly, the specific amines of applicants claim 32, can be used in the practice of their invention for the purpose of providing adequate isocyanate reactive components(see column 6 lines 27-48, as well as, the entire document, again). Accordingly, it would have been obvious for one having ordinary skill in the art to have employed the amine initiators disclosed by Falke et al. in the preparations of Falke et al. in blended combinations for the purpose of providing their isocyanate reactive effect in the preparations of Falke et al. in order to arrive at the products and/or processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

The limitations of claims 33-40 have been considered but the reference provides disclosure of glycerine-based polyether polyols and NCO indexes as claimed and distinction based on these elements is not seen. Additionally, the relative effective attenuation recitations of claim 40 are not seen to patentably distinguish the claims in a patentable sense as a clear basis for these claim recited determinations are not set forth in the claims so as to give the recitations of this claims meaning as a limitation in the patentable sense.

**Response to Arguments:**

Applicants' arguments on reply have been considered, but rejections are maintained for all of the reasons set forth above. Applicants' arguments and affidavit with regard to the qualitative terms "viscoelastic" and "semi-rigid" have been considered, but distinction based on the recitation of these terms in the claims is not seen. Though these relative terms of qualitative properties may be useful for practical purposes by practitioners in the art, they alone can not serve to distinguish the articles of applicants' claims from those of the cited prior art. Differences between the products of applicants' claims and those of the cited prior art must be based on the material make-ups of the products of applicants' invention which are supported by determinably defined limitation in the claims. Applicants' claims are not distinguishable from the flexible foams of the cited prior art based on the recitation of the relative terms "semi-rigid" and/or "viscoelastic"

Regarding the language "propylene oxide extended tip" of applicants' clip recited in applicants' claims, examiner holds no objection to applicants' position set forth at page 14 lines 13-15 of their reply. However, such agreement does not negate examiner's positions set forth in the rejections above, and the rejections are maintained as proper as set forth above.

Regarding consideration of any showing of new or unexpected results, it is held that comparisons between the closest prior art which are commensurate in scope with the scope of the instant claims have not been made.

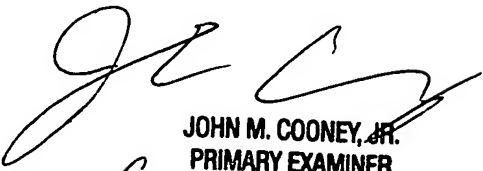
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Cooney whose telephone number is 571-272-1070. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
JOHN M. COONEY, JR.  
PRIMARY EXAMINER  
Group F00